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## **New Bounds on Monopoles from Intergalactic Magnetic Fields**

*Monday, September 11, 2023 6:00 PM (15 minutes)*

Monopoles are inevitable predictions of GUT theories. They are produced during phase transitions in the early universe, but also mechanisms like Schwinger effect in strong magnetic fields could give relevant contributions to the monopole number density. I will show that from the detection of intergalactic magnetic fields we can infer additional bounds on the magnetic monopole flux. I will also discuss the implications of these bounds for minicharged monopoles, for magnetic black holes, for monopole pair production in primordial magnetic fields and for terrestrial experiments.

**Primary author:** Mr PERRI, Daniele (SISSA, Trieste)

**Presenter:** Mr PERRI, Daniele (SISSA, Trieste)

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